Abstract

A mixed-signal core designed for efficient concurrent testing analog, mixed-signal, and digital components. One tester may test all components and, thereby, reduce test time without losing full test coverage. An analog module includes all the analog and mixed-signal components of the mixed-signal core, while a first digital module includes digital components required for functional/parametric verification of the mixed-signal components within the analog module. A first virtual boundary connects the analog and the first digital modules to gate the signal transfer during testing. A second digital module includes the remaining digital components of the mixed-signal core, whereby a second virtual boundary separates it from the first digital module. This type of partitioning enables the mixed-signal core to have three modes of operation, using which the analog, mixed-signal and digital components can all be tested.